

Physical Science Exam Review

1. List 5 lab safety techniques

2. Convert the following:

a. 25 centimeters to millimeters

b. 57 kilometers to meters

c. 433 millimeters to meters

d. 33 meters to centimeters

e. 18 millimeters to centimeters

f. 89 meters to kilometers

3. Convert the following:

a. 23 inches to centimeters

b. 22 miles to kilometers

c. 12 liters to gallons

d. 23 kilograms to pounds

4. Count the number of significant digits in the following:

a. 554

b. 0.000033

c. 23000

d. 43.00

e. 0.003300

5. You have a regularly shaped object with the following dimensions: 3.3 cm length, 2.2 cm width, 2.1 cm height. The mass of this object is 44.2 grams. What is the density of this object? Will this object float or sink in water?

6. You are traveling to Dodge City which is 51 miles away. If it takes you 45 minutes to get there, what is your average speed? (put answer in mi/hr)

7. You are running around the track. If you run 1000 meters in 150 seconds, what is your average speed?

8. You are running 3.0 m/s then speed up to 8.5 m/s. If it took you 2.7 seconds to speed up, what is your acceleration?

9. Construct a force diagram for the following. Be sure to label each force.

a. a motorcycle accelerating to the left

b. a baseball being thrown to the right

c. a person standing at the bus stop

d. A canoe moving to the right

e. a beach ball being throw to the left

10. Describe Newton's 1st law of motion

11. Describe Newton's 2nd law of motion

12. Describe Newton's 3rd law of motion

13. If you apply a force of 12 N to a 5.5 kg object, what is the acceleration of that object?

14. If you apply a force of 33 N to an object and it accelerates 3.3 m/s^2 , what is the mass of that object?

15. Describe each of the following and provide an example:

a. Convection

b. Conduction

c. Radiation

16. Describe what conservation of energy means and provide an example.

17. Be able to describe various types of energy (kinetic, potential, electrical, etc.)